Surgical Treatment of Hemorrhagic Pachymeningitis. John C. Munro. (The Chicago Medical Recorder, December, 1902).

The conclusions of the author, in a very interesting and instructive paper presented at the October meeting of the Chicago Medical Society, are (1) Hemorrhagic pachymeningitis is found in the insane and in infants, but for the most part in men not insane after middle life; (2) Alcohol, syphilis, acute and wasting diseases, and trauma apparently bear some causative relation; (3) The symptoms are those of diffuse subdural hemorrhage, coming on slowly, producing mental irritation, spasm and rigidity of the extremities, convulsions, and later, paralysis, the sequence being more or less irregular; (4.) The cranial nerves are not liable to be affected; (5.) The treatment is surgical, and should be instituted as early in the disease as possible. (6.) Without operative relief in cases with pressure symptoms, the prognosis is practically hopeless. Early operation is not serious and gives the best chance for recovery.

J. E. Clark (New York).

Subdural Interposition of Rubber Tissue Without Removal of the Gasserian Ganglion in Operations for Tic-Douloureux. R. Abbe (Ann. of Surg., Jan., 1903).

The hemorrhage and the dangers from hemorrhage and shock led the author to reason that mere division of the affected trunk of the nerve within the skull, coupled with the interposition of a bit of rubber tissue between the divided ends would not only obviate the major operation of removing the ganglia, but also effectually prevent the reunion of the cut nerve. The operation which he advocates in grave cases of this disease is that the surgeon should not temporize by any of the external methods of operating, but at once resort to this, which now seems to him the proved and radical cure in its safest form. The external carotid artery may be ligated with advantage in controlling hemorrhage. A vertical incision over the middle of the zygoma carried through the temporal muscle to the bone divides no important nerve or vessels. The muscle is scraped to either side and held by retractors. A small opening is quickly made by mallet and gouge, and this is rapidly and safely enlarged to an inch and a half diameter. No better exposure can be had by any incision than this simple straight one. The dura is then pressed away from the middle fossa until the nerves are exposed. The much complained hemorrhage from venous sinuses on dissecting up the periosteum can be best controlled, and very quickly, by pressing a strip of rubber tissue upon the place with a firm pad of gauze in strips. The clotting of blood under the rubber tissue takes place very quickly, while if plain gauze is put in contact with the bleeding point, the blood being sucked up into it, prevents clotting. The nerve trunks he grasps in separate artery clamps, divides each close to the foramen of exit, and, either by cutting or by rotation of the forceps, separates them from the Gasserian ganglion. The wound is packed for a few minutes with narrow strips of iodoform gauze until dry. A piece of thin gutta-percha tissue, stiff enough to be easily handled, is sterilized by rubbing with bichloride solution, and kept in salt solution for a few moments before operating. This is cut 1½ inches long and three-fourths of an inch wide. This is laid carefully over both the foramen rotundum and ovale, where the nerves have been separated and pressed carefully into place by iodoform gauze. In a very few moments the gauze may be drawn away, and the Gasserian ganglion allowed to settle down upon the rubber tissue. A small drainage-tube should be placed in the angle of the wound to insure a perfectly dry healing. It certainly is beyond dispute that there is no need for the removal of the first branch of the fifth pair in any case of grave tic-douloureux unless the origin is to be found in a tumor of the Gasserian ganglion or behind it. In conclusion, he says that he thinks that he has demonstrated (1) that the operations upon the ganglion have been carried to an unnecessary degree of severity; (2) that resection of one-fourth or one-half inch of the nerves anterior to the ganglion and within the cranium, with the interposition of rubber tissue, can be relied upon for perfect cure, up to six years at least, with probability of permanency as great as by any method; (3) that it is a simple, speedy, and safe method, and thereby fulfils the highest aims of the best surgery. JELLIFFE.

THE CHANGES IN THE SPINAL CORD AND MEDULLA IN PERNICIOUS ANEMIA. Frank Billings (The Chicago Medical Recorder, Jan., 1903).

From careful study of the subject the author concludes (1.) That there is a well established relation of diffuse cord degeneration with pernicious anemia; (2) It seems probable that the hemolysis and the cord changes are due to the same toxin; (3.) While the source of the toxin is unknown, the fact that gastro-intestinal disturbance is so common in the disease would lead one to suppose that it is of intestinal origin; (4) The diffuse degenerations of the spinal cord which occur in conditions without pernicious anemia do not appear to differ essentially from those of pernicious anemia; (5) It is possible that a common blood circulating poison exists which may expend its force upon the blood in one individual, upon the nervous apparatus in another, and coincidently upon the blood and spinal cord in others. J. E. CLARK (New York).

HEREDITY OF MENTAL DISEASE IN GENERAL. Dr. J. Wiglesworth, Medical Superintendent of Rainhill Asylum (The Hospital, Feb. 14, 1903).

The author deals at some length with important and practical facts collected in a long experience and referring to the question of the hereditary transmission of mental diseases. It used to be taught in the earlier days of biological science that "the respective shares which the sperm-cell (spermatozoon) and the germ-cell (ovum) contributed to the act of fertilization were of a different order, the germ cell furnishing the matter, the sperm-cell supplying the force which animated that matter, and started it upon its career of development." This view can no longer be held in the light of modern research. We now know that the portion of the germ-cell or ovum which takes the main part in the formation of the fetus or offspring is the nucleus. It is to the union of the nucleus of the sperm-cell with that of the germ-cell that the development of the fetus is due, the two nuclei (male and female respectively) contributing equal shares, in the material sense, to the process. The nuclear material which thus constitutes the vehicle of transmission of herditary quali ties to the fetus from both parents, is itself an organized and complex structure, into whose composition there enter probably many millions of molecules of multiform character, and which singly or in groups take part in the development of every portion of the fetus. Prior to fertilization the nucleus of the ovum undergoes a series of changes whereby one-half of the nuclear "chromatic substance" is divided off and extruded. Precisely analogous changes take place with regard to the nucleus of the spermatozoon with the exception that each half of the "chromatic substance" resulting from the division continues as a sperm-cell. Although the precise interpretation of these "reducing divisions" is still obscure, the net result is obviously to diminish by one-half the chromatic substance contained both in the germ-cell and in the sperm-cell. And it seems clear that the chief object of this process is to prevent indefinite increase in the mass of the nuclear substance, and thus to secure uniformity of mass. But this "reducing division" is not merely a process for keeping the mass of the nuclear substance uniform in size. For prior to the operation of "reducing division" the nuclear structures (chromatic rods) undergo a process of splitting or cleavage by which each chromatic rod is split longitudinally into halves. Weismann, whose monumental work on heredity has done much to illuminate the subject, believes that the object of this primary doubling of the nuclear rods is to increase the possible number of combinations of